

PIONEER®

Air Conditioning & Heat Pump Systems

The "right choice" for those who want the "Best"....

RYB-M22

DC INVERTER++ SPECIFICATIONS

(DC Inverter Heat Pump)

Ceiling Concealed Ducted Split Systems

(9,000 through 48,000 BTU/Hr.)

15.5~20.0 SEER - DC Inverter++



Mod. 012~018

Mod. 024~036

Mod. 048



STANDARD ACCESSORIES:
• LCD WIRED CONTROLLER



OPTIONAL ACCESSORIES:
• LCD WIRELESS REMOTE
• CONDENSATE REMOVAL PUMP

AVAILABLE VOLTAGES:
• G : 208~230/1/60 (009~048)

AVAILABLE REFRIGERANTS:



STANDARD FEATURES

- HORIZONTAL CEILING CONCEALED DUCTED INDOOR UNIT
- COOLING ONLY OR HEAT PUMP APPLICATIONS
- ULTRA SLIM FULLY CASED COMPACT CABINET DESIGN
- FURRED-IN CEILING CONCEALED DUCTED APPLICATIONS
- FULL GALVANIZED HEAVY STEEL CASING FOR INDOOR UNITS
- CONVERTIBLE (REAR-BOTTOM) AIR RETURN
- DIGITAL LCD SCREEN WIRELESS REMOTE CONTROLLER
- ULTRA QUIET AIR DELIVERY WITH HIGH PERFORMANCE
- VARIABLE SPEED ECM INDOOR FAN MOTORS
- HEAVY GAUGE CLOSED CELL EXTERNAL RUBBER INSULATION
- AUTO-RESTART WITH MEMORY FOR POWER OUTAGES
- TIMER FOR PRESET STARTING AND STOPPING
- AUTO CHANGEOVER, DRY AND FAN ONLY MODES
- SEASON SENSITIVE OPERATIONAL LOGIC
- SELF LEARNING TIME-DEMAND DEFROST
- AUTOMATIC SWING DIRECTIONAL LOUVERS
- THREE + AUTO SPEED PSC BLOWER MOTOR
- DIGITAL MOTOR SPEED CONTROL SYSTEM
- WHISPER QUIET INDOOR MOTOR WITH BALL BEARINGS
- HIGH AIR FLOW VOLUME FOR QUICK PERFORMANCE
- ULTRA HIGH EFFICIENCY GROOVED COPPER TUBES
- ENHANCED LOUVERED HYDROPHILIC ALUMINUM FINNS
- LATEST TECHNOLOGIES IN DC INVERTER DRIVER SYSTEM
- DYNAMICALLY BALANCED ULTRA QUIET SCIROCCO BLOWERS
- ANTI MILDEW TREATMENT ON BLOWER WHEELS
- SUPERIOR ENERGY EFFICIENCY AND PERFORMANCE
- FULLY VARIABLE SPEED COMPRESSORS FOR ALL MODELS
- FULLY CHARGED WITH ENVIRONMENTALLY FRIENDLY R410A GAS
- PRECISION CONTROLLED COMPRESSOR AND FAN MOTORS
- ULTRA GALVANIZED SHEET METAL PARTS
- HEAVY COAT OF BAKED ENAMEL PAINT FOR THE OUTDOOR UNIT
- DURABLE OUTDOOR FAN WITH HIGH GLASS CONTENT
- EXTRA DURABLE, PERMANENTLY LUBRICATED OUTDOOR MOTOR
- INTERNAL OVERLOAD PROTECTION FOR MOTORS
- FLARE TYPE REFRIGERANT CONNECTIONS
- FULL OPERATING CHARGE OF REFRIGERANT
- STANDARDIZED CABINET DESIGN FOR ALL MODELS
- EASY ACCESS FOR PIPING AND WIRING CONNECTIONS
- HIGHEST GRADE COMPONENTS FOR LONG LIFE EXPECTANCY
- AMPLE AVAILABILITY OF SPARE PARTS AND ACCESSORIES

PIONEER®
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RYB-M22 Series Product Line Up

PARKER DAVIS HVAC SYSTEMS, INC.
2260 NW 102nd, Place, Doral, Florida 33172 - U.S.A.
Tel: (305) 513-4488 - Fax: (305) 513-4499
Web Site: www.pd-hvac.com - email: info@pd-hvac.com



INDOOR SECTION MODEL NUMBERS AND SPECIFICATIONS:

Model			RB009GMFILCFHD	RB012GMFILCFHD	RB018GMFILCFHD	RB024GMFILCFHD	RB036GMFILCFHD	RB048GMFILCFHD
Product Code			22023011000630	22023011000631	22023011000632	22023011000633	22023011000634	22023011000635
Power supply	V-Ph-Hz		208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60
Cooling	Capacity	Btu/h	9000	12000	18000	24000	36000	48000
	SEER		19.5	19.0	19.0	20.0	15.5	17.4
	EER	Btu/W	13.5	12.5	12.5	12.5	8.5	8.9
Heating	Capacity	Btu/h	10000	12000	18000	24000	38000	49500
	HSPF4		10.5	10.0	10.5	10.5	10.5	10.3
	Model		ZKFN-55-8-1	ZKFN-55-8-1	ZKFN-90-8-1	ZKFN-90-8-1	ZKFN-150-8-1	ZKFN-240-8-1
Indoor fan motor	Qty		1	1	1	1	1	1
	Power	W	55(Output)	55(Output)	90(Output)	90(Output)	150(Output)	240(Output)
	RLA	A	0.9	1	1.5	2	1.5	1.8
Indoor air flow (Hi/Med/Lo) (No duct)	Speed	r/min	1010 / 890 / 780	1100 / 960 / 830	1090 / 950 / 860	1020 / 840 / 750	1070 / 950 / 760	1090 / 950 / 850
	Indoor air flow (Hi/Med/Lo) (No duct)	m ³ /h	570 / 493 / 408	629 / 544 / 442	884 / 731 / 612	1394 / 1054 / 884	1904 / 1598 / 1156	2499 / 2006 / 1598
	Indoor air flow (Hi/Med/Lo) (No duct)	CFM	335 / 290 / 240	370 / 320 / 260	520 / 430 / 360	820 / 620 / 520	1120 / 940 / 680	1470 / 1180 / 940
External Static Pressure (Range)	Pa		0 ~ 45	0 ~ 45	0 ~ 70	0 ~ 100	0 ~ 100	0 ~ 100
	Inch WC		0 ~ 0.18	0 ~ 0.18	0 ~ 0.28	0 ~ 0.40	0 ~ 0.40	0 ~ 0.40
Indoor noise level (Hi/Med/Low)	Indoor noise level (Hi/Med/Low)	dB(A)	38 / 35 / 31	44 / 37 / 31	41 / 39 / 37	53 / 48 / 43	53 / 51 / 47	52 / 49 / 46
	Dimension (WxDxH)	mm	700 x 635 x 210	700 x 635 x 210	920 x 635 x 210	920 x 635 x 210	1140 x 775 x 270	1200 x 865 x 300
	Dimension (WxDxH)	inch	27"-1/2 x 25" x 8"-1/4	27"-1/2 x 25" x 8"-1/4	36"-1/4 x 25" x 8"-1/4	36"-1/4 x 25" x 10"-5/8	44"-7/8 x 30"-1/2 x 10"-5/8	47"-1/4 x 34" x 11"-3/4
Indoor unit	Packing(WxDxH)	mm	915 x 655 x 290	915 x 655 x 290	1135 x 655 x 290	1150 x 655 x 290	1355 x 795 x 350	1405 x 920 x 373
	Packing(WxDxH)	inch	36" x 25"-3/4 x 11"-3/8	36" x 25"-3/4 x 11"-3/8	44"-5/8 x 25"-3/4 x 11"-3/8	45"-1/4 x 25"-3/4 x 13"-3/4	53"-3/8 x 31"-1/3 x 13"-3/4	54"-1/2 x 36"-1/4 x 14"-5/8
	Net/Gross weight	kg	18.1 / 22.8	19.1 / 23.4	23.1 / 27.5	26 / 31	34 / 40.5	45 / 53
	Net/Gross weight	lbs.	40 / 50	42 / 51.5	50.5 / 60.5	57.5 / 68.5	75 / 89	99 / 117
Design pressure	PSIG		550 / 340 PSIG	550 / 340 PSIG	550 / 340 PSIG	550 / 340 PSIG	550 / 340 PSIG	550 / 340 PSIG
	mm		OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Drainage water pipe diameter	Inch		1"	1"	1"	1"	1"	1"
	mm		Φ 6.35 / Φ 9.52	Φ 6.35 / Φ 12.7	Φ 6.35 / Φ 12.7	Φ 9.52 / Φ 15.9	Φ 9.52 / Φ 15.9	Φ 9.52 / Φ 15.9
Refrigerant piping	Liquid side/ Gas side	mm	Φ 1/4" / Φ 3/8"	Φ 1/4" / Φ 1/2"	Φ 1/4" / Φ 1/2"	Φ 3/8" / Φ 5/8"	Φ 3/8" / Φ 5/8"	Φ 3/8" / Φ 5/8"
		Inch.	Φ 1/4" / Φ 3/8"	Φ 1/4" / Φ 1/2"	Φ 1/4" / Φ 1/2"	Φ 3/8" / Φ 5/8"	Φ 3/8" / Φ 5/8"	Φ 3/8" / Φ 5/8"
Controller			LCD Wired Remote	LCD Wired Remote	LCD Wired Remote	LCD Wired Remote	LCD Wired Remote	LCD Wired Remote
Room temperature	Cooling	°C	17~32	17~32	17~32	17~32	17~32	17~32
	Cooling	°F	62~90	62~90	62~90	62~90	62~90	62~90
	Heating	°C	0~30	0~30	0~30	0~30	0~30	0~30
	Heating	°F	32~86	32~86	32~86	32~86	32~86	32~86
Operation temperature	°C		17~30	17~30	17~30	17~30	17~30	17~30
	°F		62~86	62~86	62~86	62~86	62~86	62~86

Specification and data listed herein are subject to change without notice due to constant product and engineering improvements. Always refer to the equipment nameplate for applicable exact information. Ratings are based laboratory tests, performed in accordance with the applicable AHRI Standards for Variable Speed Mini Split Heat Pump Systems.

OUTDOOR SECTION MODEL NUMBERS AND SPECIFICATIONS:

Model			YN009GMFI22RPD	YN012GMFI22RPD	YN018GMFI22RPD	YN024GMFI22RPD	YN036GMFI17RUD	YN048GMFI17RUD
Product Code			22022016005160	22022016005161	22022016005162	22022016005121	22022516000402	22022516000702
Power supply	V- Ph-Hz		208-230V~ 60Hz, 1Ph	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60	208-230-1-60
Max. fuse	A		15	15	20	25	50	50
Minimum circuit ampacity	A		10	12	15	18	30	35
Compressor	Model		ASN98D22UFZ	ASM98D32UFZ	ASM135D23UFZ	ATF235D22UMT	ATF310D43UMT	ATQ420D1UMU
	Type		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
	Brand		GMCC	GMCC	GMCC	GMCC	GMCC	GMCC
	Capacity	Btu/h	10014	11157	13836	24345	32823	44697
	Input	W	748	800	1035	1970	2570	3420
	Rated current (RLA)	A	5.5	6.8	10.5	12	22	23.5
	Thermal protector position		INTERNAL	INTERNAL	INTERNAL	EXTERNAL	EXTERNAL	INTERNAL
Refrigerant Oil	ml	ESTER OIL VG74/370	ESTER OIL VG74/370	ESTER OIL VG74/450	POE(VG74)/670	ESTER OIL VG74/1000	ESTER OIL VG74/1400	
Outdoor fan motor	Model		ZKFN-40-8-1L	ZKFN-40-8-1L	ZKFN-50-8-2	ZKFN-120-8-2	ZKFN-120-8-2	ZKFN-85-8-22
	Qty		1	1	1	1	1	2
	Input	W	40(Output)	40(Output)	50(Output)	120(Output)	120(Output)	85(Output)
	RLA	A	0.4	0.4	0.6	0.6	1	0.39
Outdoor air flow (Max.)	Speed	r/min	800	800	810	810	950	900
	Outdoor air flow (Max.)	m ³ /h	1800	1900	2500	4000	4300	7600
	Outdoor air flow (Max.)	CFM	1060	1120	1470	2354	2530	4470
Outdoor noise level	dB(A)		58	58	60	61	66	62.5
Throttle type			Capillary +EXV	Capillary +EXV	Capillary +EXV	Capillary +EXV	Capillary +EXV	Capillary +EXV
Outdoor unit	Dimension (WxDxH)	mm	770 x 300 x 555	800 x 333 x 554	845 x 363 x 702	946 x 410 x 810	946 x 410 x 810	952 x 415 x 1333
	Dimension (WxDxH)	inch	30"-3/8 x 11"-3/4 x 21"-3/4	31"-1/2 x 13"-1/8 x 21"-3/4	33"-1/4 x 14"-3/8 x 27"-5/8	37"-1/4 x 16"-1/8 x 31"-7/8	37"-1/4 x 16"-1/8 x 31"-7/8	37"-1/2 x 16"-3/8 x 52"-1/2
	Packing (WxDxH)	mm	900 x 345 x 585	920 x 390 x 615	965 x 395 x 755	1090 x 500 x 865	1090 x 500 x 865	1095 x 495 x 1480
	Packing (WxDxH)	inch	35"-3/8 x 13"-1/2 x 23"	36"-1/4 x 15"-3/8 x 24"-1/4	38" x 15"-1/2 x 29"-3/4	42"-7/8 x 19"-5/8 x 34"	42"-7/8 x 19"-5/8 x 34"	43"-1/8 x 19"-1/2 x 58"-1/4
	Net/ Gross weight	kg	28 / 30.3	34.8 / 37.5	43.2 / 46.5	62 / 67.4	67.4 / 73	98.6 / 111.6
	Net/ Gross weight	lbs.	62 / 66.5	76.5 / 82.5	95 / 102.5	136.5 / 148.5	148.5 / 161	217.5 / 246
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Charged volume	Ozs	38.8	40.6	68.8	82.9	108.0	148.2
	Max piping without adding	Feet	25	25	25	25	25.0	25.0
	Add per additional feet after	Ozs	0.16	0.16	0.16	0.32	0.3	0.3
Design pressure	PSIG		550 / 340	550 / 340	550 / 340	550 / 340	550 / 340	550 / 340
	mm		Φ6.35 / Φ9.52 (1/4" / 3/8)	Φ6.35 / Φ12.7 (1/4" / 1/2")	Φ6.35 / Φ12.7 (1/4" / 1/2")	Φ9.52 / Φ15.9 (3/8" / 5/8")	Φ9.52 / Φ15.9 (3/8" / 5/8")	Φ9.52 / Φ15.9 (3/8" / 5/8")
Refrigerant piping	Liquid side / Gas side	mm(inch)	Φ6.35 / Φ9.52 (1/4" / 3/8)	Φ6.35 / Φ12.7 (1/4" / 1/2")	Φ6.35 / Φ12.7 (1/4" / 1/2")	Φ9.52 / Φ15.9 (3/8" / 5/8")	Φ9.52 / Φ15.9 (3/8" / 5/8")	Φ9.52 / Φ15.9 (3/8" / 5/8")
	Max. pipe length	m	25	25	30	50	65	65
	Max. pipe length	ft	82	82	98	164	213	213
	Max. difference in level	m	10	10	20	25	30	30
	Max. difference in level	ft	33	33	66	82	98	98
Outdoor Ambient Temperature	Cooling Mode	°C	-25~50	-25~50	-25~50	-25~50	-15~50	-15~50
		°F	-13 ~ 122	-13 ~ 122	-13 ~ 122	-13 ~ 122	5 ~ 122	5 ~ 122
	Heating Mode	°C	-25~30	-25~30	-25~30	-25~30	-15~30	-15~30
		°F	-13 ~ 86	-13 ~ 86	-13 ~ 86	-13 ~ 86	5 ~ 86	5 ~ 86

EACH SYSTEM CONSISTS OF ONE INDOOR AND ONE OUTDOOR SECTION WITH SAME CAPACITY

SYSTEM MODEL		RYB009GMFILCAD	RYB012GMFILCAD	RYB018GMFILCAD	RYB024GMFILCAD	RYB036GMFILCBD	RYB048GMFILCBD
System Matchup	Indoor Unit Model	RB009GMFILCFHD	RB012GMFILCFHD	RB018GMFILCFHD	RB024GMFILCFHD	RB036GMFILCFHD	RB048GMFILCFHD
	Outdoor Unit Model	YN009GMFI22RPD	YN012GMFI22RPD	YN018GMFI22RPD	YN024GMFI22RPD	YN036GMFI17RUD	YN048GMFI17RUD

SYSTEM PERFORMANCES BASED ON LABORATORY TESTS UNDER APPLICABLE TESTING STANDARDS. ALWAYS REFER TO THE EQUIPMENT NAMEPLATE FOR EXACT REQUIREMENTS. CONTINUING ENGINEERING RESEARCH RESULTS IN STEADY IMPROVEMENTS. THEREFORE, THESE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.